

Brean Down Coastal Battery 1941/44

Typical Coastal Artillery Installations

At various points around the British coast during World War Two concrete casements were constructed to protect the 6 inch coastal defence guns. These were built to a basic design, but adapted to suit the local topography, while much of the accommodation on the sites was provided by standard Nissen huts built on concrete hut pads.

In a typical installation each gun was mounted on a concrete platform centrally fitted in the casement, with a holdfast plate set into a metre diameter circle that was made up of eighteen 42 mm bolts. Behind it was a flight of concrete steps down 1.22 metres to a lower concrete floor that had 14 shell and cartridge lockers, each 1.1 meters wide by a meter deep, that had been brought out of store and were First World War vintage. Behind them and also at the side was a protective blast wall 71 cm thick, extending to 17 metres in width and 10 metres in depth.

A feature added as an afterthought was a carapace of "H" profile steel girders, 128 mm by 155 mm in section, which was put over the rear of the emplacements, landward of the guns, to act as a flak top for protection against aerial strafing. The carapace stood at a height of 2.4 metres above the floor of the gun platform and was raised 23 cm above the concrete wall of each emplacement. It also overhung these walls to give added protection. The gap between the girders and the walls was to allow it to buckle under impact without splitting the walls apart. The Plastic Armour was 70 mm thick mastic of bituminous cement and flint and granite chippings that was poured on to the roof to set in squares between the latticework of the girders. At the bottom of each slab was a 1 metre square plate of 18 mm steel.

This system was a cheap alternative to armour plating that had been devised in August 1940. It absorbed armour-piercing rounds without shattering and was described by Portsmouth Naval Gunnery Establishment as being "very greatly superior to any other non-magnetic material, excluding non-magnetic bullet-proof steel, so far tried it is most strongly recommended that the fitting of concrete protection should be discontinued and that Plastic Armour be fitted in its place". The problem with the standard concrete and steel canopies was that they shattered under aircraft cannon-fire, while the use of Plastic Armour saved immense quantities of steel.

A concrete instrument pillar, protected by a semi-circular brick blast wall, was also provided for each gun upon which the spotters mounted their Watkin Depression Range-Finders, used to observe targets and correct the fall of fire. It was essential that these were levelled accurately, and in the Severn this meant resetting every half-an-hour to cope with the rise and fall of the tide.

Another essential was the provision of a generator house, to contain the diesel generator which provided the power for the two Coast Artillery Mk.III Searchlights, as well as for domestic lighting and ancillary duties. The lights, which had had 3 degree beams and a range of 3200 metres, could be used in two modes, either as observation

lights, to detect and expose the approach of hostile forces, or as fighting lights for use in conjunction with beach defence guns such as medium or light machine guns.

Observation lights were normally controlled by the beach commander and orders to expose were given by him. Fighting lights were invariably controlled in action by whoever was in command of the weapons which they served. Normally lights would not be exposed until targets were within effective range as premature exposure could have resulted in the loss of surprise and greatly increased the chance of the lights being put out of action by the enemy. To man one light a detachment of three was required, a junior NCO in charge, a light operator and an engine operator. When being used to engage fast moving targets such as E-Boats at close range, the initial location would have been by the searchlight, after which they would have been engaged by the guns over open sights.

Standard Searchlight Posts were built 3 metres wide by 5 metres deep in reinforced concrete and with a projecting semi-circular front that was 2.5 metres high. The light was protected behind curved armoured steel shutters that were pulled back along brass rollers. As with the gun batteries searchlight posts would have had coats of camouflage paint applied to help merge into the background.

It was normal practice to fit Coast Artillery automatic control of searchlights from the Battery Observation Post, where the observers were issued with binoculars. Lights could then be automatically traversed, elevated and depressed from this Command Post, and all the attendants at the light had to do was stop and start generators, open and close shutters, expose and douse the light, and change carbons.

The Observation, or Command Posts were normally rectangular in shape of concrete and girder construction, fitted with hinged steel shutters to cover the wide slit opening when not in use. They were built on two levels, sometimes partly above and partly below ground and were heated with a coal-burning stove.

At Brean Down the Command Post on two levels was behind the fort and south-west of it, and there was a Lewis gun position on the lower level. There practice anti-ship firing was normally carried out on a large wooden target, the size of a motor boat, which in the Severn was normally towed by the War Department steam tug 'Haslar'.

Diary of the Brean Down Battery

5/9/40: 531 (Glamorgan) Coast Regiment R.A. (T.A) formed by re-organisation of Glamorgan Heavy Regiment R.A. (T.A.) in Cardiff Fire Command. The following independent batteries were subsequently regimented with 531 Regiment: - 130 Battery (Nell's Point, Barry Island); 365 Battery (Portishead) and 366 Battery (Cardiff Docks).

7/10/40: A report by Lieutenant P. Evans Royal Engineers (attached to the South Wales War Department Office, Porthcawl) recommended the following arrangement be made for the defence of the Severn Estuary against enemy naval forces by engaging raiding vessels, particularly German torpedo boats (E Boats) and mine laying submarines. The

4 inch guns suggested were never installed, instead 6 inch weapons were subsequently erected in their place, and these, which were manually operated and percussion fired were mostly made in the first decade of the twentieth century and originally fitted to warships and armed merchant vessels during the Great War.

Severn North Fire Command (Fire Control, Flat Holm):-

Nell's Point, Barry Island, 2 x 6 inch Mk.VII (Examination Battery) – already operational - and 1 x 4"; Cardiff, 2 x 12 pounders - when mounted; Lavernock Point 2 x 6 inch: Flat Holm, (Farm House Battery) 2 x 4 inch; Steep Holm, (Summit Battery) 2 x 4 inch.

Severn South Fire Command (Deputy Fire Control, Brean Down):-

Steep Holm (Garden Battery) 2 x 4 inch; Brean Down 2 x 6 inch; Portishead, 2 x 6 inch Naval Mk.VII – already operational. Portishead will receive operational information from the Commander of Fixed Defences Severn, and when necessary from Deputy Fire Control, Brean Down.

9/03/41: Bristol Channel Coastal Defence Artillery. From Headquarters Southern Command:- The implementation of the Bristol Channel Scheme now calls for 12 x 6 inch guns. Flat Holm now to have two batteries, North (Farm House Battery) and South both equipped with 6 inch guns. These, however, were never installed, 4.5 inch dual-purpose anti-aircraft and coastal weapons eventually being fitted in their place.

5/6/41: Cardiff Heavy Anti-Aircraft site at Lavernock Point allocated an Anti-Shipping role as secondary to their primary duty of A.A. defence.

14/7/41: A detachment of one sergeant and 32 other ranks from 116 Pioneer Company moved to Brean Down to work on the roads and general construction, but they were moved to Steep Holm on 19/7/41. 'M.V. Assurity' to Brean Down with stores.

29/7/41: Radio-telephone set (Army No.17) installed and communications set up between Nell's Point, Brean Down and Flat Holm, while the link to Steep Holm was established two days later.

05/08/41: Orders received to cease work on pier construction at Brean Down and to transfer No.3 Section 930 Port Construction & Repair Company to Steep Holm. They left on 12/8/41.

05/09/41: Lieutenant Forbes and 30 other ranks of 116 Pioneer Company left for Brean Down on detachment in tented accommodation. Their duties were to be road making, unloading stores and materials, clearing the gun sites and digging out and removing old cannon from their former sites.

16/9/41: Lieutenant Forbes and 30 other ranks of 116 Pioneer Company left Brean Down.

09/11/41: Help given by 930 Port Construction & Repair Company at Steep Holm to land telephone cable from Brean Down.

15.12.41: 430 Battery joined 531 Coast Regiment. Temporarily accommodated at Brean Down.

19/12/41: With work on various new gun sites in the Severn Estuary nearing completion Cardiff Fire Command was re-organised into three separate Fire Commands under HQ Severn Fixed Defences at 12 James Street, Cardiff, commanded by Lieutenant-Colonel E.M.Bolt. It now comprised Flat Holm Fire Command; Docks Fire Command (at Cardiff) with the existing 531 Coast Regiment (HQ Barry Island); and Brean Down Fire Command. On this date two new Coast Regiments were also formed, 570 to work with Flat Holm Fire Command and 571 to work with Brean Down Fire Command, the necessary batteries being transferred from 531 Regiment.

570 Coast Regiment R.A. was formed under Major C.W. Galloway with its HQ at 'Craiglands', Redbrink Close, Barry Island. It comprised 188 Battery at Brean Down, but soon to be deployed at Steep Holm (South); 189 Battery at Steep Holm (North); and 145 Battery at Lavernock Point.

571 Coast Regiment R.A. was formed under Major R.G. Hickson with its HQ temporarily established at Portishead pending removal to Brean Down on completion of new accommodation. It comprised 365 Battery at Portishead and 366 Battery at Cardiff, but soon to be deployed at Brean Down.

24/12/41: A detachment of 351 Heavy Anti-Aircraft Battery R.A. was sent from Lavernock Fort to man the 4.7 inch dual role guns at Flat Holm (North).

9/1/42: 188/570 (Brean Down) attached to 571 Regiment for all purposes.

20/1/42: Major H.G. Mason posted to 571 Regiment to assume command vice Major R.G. Hickson.

7/2/42: 35 men of 188/570 moved off from Brean Down to their permanent station at Steep Holm (South). Unit ceased to be temporarily attached to 571 Regiment.

9/2/42: Lieutenant-Colonel (Acting Colonel) C.L. Ferard M.C. posted to command Severn Fixed Defences vice Lieutenant-Colonel E.M. Bolt. Major C.W. Galloway relinquished command of 570 Regiment to Lieutenant-Colonel E.M. Bolt.

10/2/42: Bad weather conditions constantly delaying construction work on Brean Down Fort.

13/2/42: Remainder of the men of 188/570 at Brean Down moved to Steep Holm (South).

31/3/42: At 11.30 hrs No.1 gun mounted at Brean Down was ready for action under 430/571. Telephone line laid from No.1 gun to No.2 Searchlight.

4/4/42: 366/571 moved from Cardiff to Brean Down and 430/571 moved from Brean Down to permanent station at Alexandra Dock, Cardiff, and ceased to be attached 571 Regiment. It then came under 531 Regiment.

7/4/42: Gun shift from Cardiff Armament Supply Depot to Brean Down completed. No. 2 gun under 366/571 ready for action at 17.00 hrs.

19/4/42: 571 Regimental HQ moved from Portishead to Brean Down.

26/4/42: Although 365/571 at Portishead and 366/571 at Brean Down are in 8 Corps, Southern Command area, they are under the operational control of the Commander Severn Defences based in South Wales under Western Command.

27/4/42: HQ Severn Fixed Defences moved to Swanbridge, near Penarth.

8/5/42: Lieutenant-Colonel E.M. Bolt posted overseas, Major C.W. Galloway took over again as officer commanding 570 Regiment.

30/5/42: Major H.G. Mason, officer commanding 571 Regiment, and Captain R.E. Wilson made a flight over Brean Down during the afternoon to observe the camouflage.

01.06.42: Colonel Ferard, Commander Severn Fixed Defences, visited Brean Down in the morning. Lieutenant-Colonel D.S. Holt G.S.O.1 R.A. C.A. Western Command, visited Brean Down in the afternoon.

4/6/42: Chief Signals Officer, Severn Fixed Defences, visited Brean Down and reported the progress of the communication installation very satisfactory.

6/4/42: Lieutenant Gold-Lewis R.A. made a flight over Brean Down for the purpose of observing and photographing the camouflage.

20/6/42: Severn Fixed Defences included in a new formation, HQ Coast Artillery, South Wales, due to 559 Coast Regiment in the Swansea/Port Talbot area being taken on as an added responsibility on this day (Mumbles Hill – 2 x 6"; Port Talbot - 2 x 138 mm Mk.I; Swansea – 2 x 75 mm Mk.I). The Severn defences then comprised:-

Flat Holm Fire Command with HQ and Fire Control 570 Regiment which controlled 145/570 at Lavernock (1 x 6" Mk.VIII, 1 x 6" Mk.VII) and 188/570 at Steep Holm North (2 x 6" Mk.VII).

Docks Fire Command (Cardiff) with HQ 531 Regiment which controlled 130/531 at Nell's Point (2 x 6" Mk.VIII); 427/531 at Newport (2 x QF 75 mm) and 430/531 at Cardiff - Alexandra Dock (2 x 75 mm Mk.I).

Brean Down Fire Command with HQ and Fire Control 571 Regiment which controlled 365/571 at Portishead (2 x 6" Mk. VII) and 366/571 at Brean Down (2 x 6" Mk.XII).

The Severn Defence Telephone System. This used submarine cables (65 mm insulated copper) and land lines was as follows:-

Fighting Lines

Cardiff Fire Director to Fire Command Flat Holm
Cardiff Fire Director to Fire Command Brean Down
Cardiff Fire Director to Fire Command Lavernock Battery

Fire Commander

Brean Down to Steep Holm
Brean Down to Cardiff (Land Route)
Brean Down to Portishead (Land Route)

Administrative/Alternative Fighting Lines

Lavernock to Steep Holm
Flat Holm to Steep Holm
Steep Holm to Brean Down

7/7/42: Major Mason of 571 Regiment attended an investiture at Buckingham Palace to receive the M.B.E.

10/7/42: Practice seaward by 366/571 at Brean Down.

25/7/42: Practice Seaward by 366/571 at Brean Down.

8/8/42: Major M.W. McDonald posted to command 571 Regiment vice Major H.G. Mason M.B.E.

26/8/42: Practice shoot during the hours of darkness (evening) by 366/571 at Brean Down.

6/9/42: Practice assault on Brean Down Fort by local Home Guard. Brigadier R.J.P. Wyatt M.C. Commander Somerset and Bristol Area (Southern Command), visited Brean Down in the afternoon.

2/10/42: Operation "Moorhen" (571 Regiment) commenced. Terminated 4/10/42.

6/11/42: Practice seaward at night (20.00 hrs) by 366/571 at Brean Down.

1/12/42: Practice seaward at night (20.00 hrs) by 366/571 at Brean Down.

6/12/42: During the afternoon 366/571 at Brean Down carried out practice with the mobile 75 mm anti-tank gun.

7/12/42: Complete re-organisation of Bristol Channel Coastal Artillery with work on Flat Holm and Steep Holm gun sites nearing completion: HQ 531 Regiment started disbanding and this was completed by 31/12/42. The following batteries formerly with 531 Regiment were regimented with 570 Regiment (RHQ Barry):- 170/531 (Nell's Point); 187/531 (Newport) and 430/531 (Cardiff). The following batteries formerly with 570 Regiment were regimented with 571 Regiment (RHQ Brean):- 188/570 (Steep Holm South) and 189/570 (Steep Holm North). In addition 146 Battery ceased to be regimented with 559 Regiment (Mumbles) being re-regimented with 570 Regiment for deployment at Flat Holm South, while 205 Battery (Flat Holm North) ceased to be independent, also being regimented with 570 Regiment. These units were to take over the AA role from 351 HAA Battery, something that was completed by 2/2/43.

On this date Bristol Channel Coastal artillery on the line Lavernock – Brean Down under Western Command comprised:-

Lavernock: 2 x 6 inch naval guns (1 x Mk.VII, 1 x Mk.VIII), arc of fire 235 degrees – south – 040 degrees, approximate range 11,000 yards.

Flat Holm North: 2 x 4.5 inch dual role AA & CA guns (QF Mk.II) , arc of fire 350 degrees – west – 160 degrees, approximate range 6000 yards.

Flat Holm South: 2 x 4.5 inch dual role AA & CA guns (QF Mk.II), arc of fire 320 degrees – west – 115 degrees, approximate range 6000 yards.

Steep Holm North: 2 x 6 inch naval guns (Mk.VII), arc of fire 050 degrees – north – 216 degrees, approximate range 6000 yards.

Steep Holm South: 2 x 6 inch naval guns (Mk.VII), arc of fire 258 degrees – south – 022 degrees, approximate range 6000 yards.

Brean Down: 2 x 6 inch naval guns (Mk.XII), arc of fire 036 degrees – north – 180 degrees, approximate range 6000 yards.

Note: Searchlights Steep 3 and 4 at Steep Holm South Battery interacted with Brean Down at the discretion of the Fire Director, Cardiff.

17/12/42: Practice seaward (day shoot) by 366/571 at Brean Down.

20/1/43: 366//571 moved to Flat Holm North to replace 189/571 which moved to Brean Down.

12/3/43: 189/571 moved to Steep Holm South to where they replaced 188/571 which moved to Brean Down.

4/5/43: 19.05 to 23.30 hrs – 6 inch seaward practice by 188/571 at Brean Down. 20.00 to 20.15 hrs – 75 mm seaward practice from Brean Down by 188/571.

27/5/43: 366/571 at Steep Holm North moved to Brean Down, exchanging places with 188/571.

11/6/43: 6 inch seaward practice by 366/571 at Brean Down (day). Also a seaward practice 6 pounder Anti-Tank shoot was carried out with the Royal Ulster Rifles (day).

12/6/43: Seaward practice by 366/571 at Brean Down – 6 pounder Anti-Tank shoot with Royal Ulster Rifles (day).

16/6/43: On this date Brean Down Fire Command comprised Fire Command HQ and Brean Down Battery with 2 x 6 inch Mk.XII naval guns on P.IX mountings and 2 x Coastal Artillery Searchlights Mk.III for observation and fighting; Steep Holm South Battery with 2 x 6 inch Mk.VII naval guns on P.VIII mountings and 2 x Coastal Artillery Searchlights Mk.III for observation and fighting. In addition, there was the Portishead Battery independent of Fire Command and directly under regimental control (571 Regiment) it had 2 x 6 inch Mk.VII naval guns on P.III mountings, 2 x Coastal Artillery Searchlights Mk.III for observation and fighting and a single beach light. This battery was manned by mainly by personnel of the 7th Somerset (Long Ashton) Battalion, Home Guard.

14/7/43: 6 inch seaward practice by 366/571 at Brean Down.

13/8/43: 75 mm seaward practice by 366/571 at Brean Down.

16/8/43: Colonel C.L. Ferard M.C. commander Severn Fixed Defences posted to Forth Fixed Defences. Lieutenant-Colonel R.A. King assumed command.

22/9/43: 75 mm seaward practice by 366/571 at Brean Down (day) and 6 inch practice at night.

20/10/43: It is announced that Lavernock (145/570), Brean Down (366/571) and Steep Holm North (188/571) have ceased to have an operational role. They are to be reduced to Care & Maintenance under Western Command on the implementation of "Flood Tide".

29/10/43: Seaward practice by 366/571 at Brean Down.

1/11/43: 571 Coast Regiment ceased to be operational.

16/11/43: A Lister generator set is to be taken out of the emplacement at Brean Down HQ of 571 Regiment for dispatch. A single 5 kw generator left in place and used for camp lighting.

19/11/43: The Lister 5 kw generator set No.CS 42424 withdrawn from Brean Down HQ of 571 Regiment and sent to C.R.E. Wells.

20/2/44: HQ Severn Fixed Defences closed at Swanbridge, re-opened at Nell's Point, Barry Island. HQ 570 Coast Regiment closed at 'Craiglands', Redbrink Close, Barry Island and opened at Nell's Point.

1/4/44: Re-organisation of Coastal Artillery: HQ Severn Fixed Defences disbanded (completed by 20/4/44). HQ 571 Coastal Regiment under Captain J.H. Ford, disbanded. Care and Maintenance party from 188/571 at Brean Down regimented to 570 Coast Regiment (Barry Island).

19/7/44: Brean Down, 2 x 6 inch naval guns on Care & Maintenance with two storekeepers.

1/6/45: 570 Coast Regiment disbanded (completed by 22/6/45). 188 Battery also disbanded.